

REMARKS

Reconsideration is requested.

Claims 91-92 are cancelled. Claims 78-90 are pending in the application.

The Examiner's indication of allowance of claims 80-84 is acknowledged with appreciation.

Claims 78-79, and 85 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,753,548 (hereinafter '548 patent); claims 87-88 were objected to as being dependent on a rejected base claim, but were indicated to be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims; and claims 86, 89-92 were withdrawn from consideration as being directed to a non-elected invention. Applicant reserves the right to file a divisional application for the withdrawn claims.

Rejection of claims 78-79 under 35 U.S.C. §102(b) as being anticipated by the '548 patent is respectfully traversed.

Claim 78 recites, in part, a method of forming a void region associated with a substrate, comprising forming a sacrificial mass over the substrate, forming a layer over the mass, and subjecting the mass to conditions wherein a component of the mass transports from the mass into the layer to form a mixture of the layer and the component, and wherein the transporting the component leaves an enclosed void region between the substrate and the mixture of the layer and the component.

The response to arguments section on page 4 of the instant Office Action indicates that "Applicant misconstrues the Examiner's rejection."¹ Such is not true.

In the above-noted section, the Examiner alleges that "the sacrificial mass is not the gate oxide rather it is the boron contained within the channel under the gate oxide which are transported and disrupt the function of both the ILD and the gate oxide" as described in col. 2 of the '548 reference. Applicant respectfully disagrees in view of the following:

Even assuming for argument purposes that the boron, contained within the channel under the gate oxide, to be the sacrificial mass as contended by the Examiner, there is no teaching or suggestion in the '548 reference that there is any loss or sacrifice of boron from the channel. On the contrary, the '548 reference discloses that boron diffuses from the gate electrode 20 (which is heavily doped with BF₂) into the gate oxide 18. Boron diffuses into the gate oxide 18 and fluorine outgases from the gate electrode 20. See col. 2, lines 24-26 and lines 33-34.

Thus, the only material that the '548 reference reflects as being lost (sacrificed) is fluorine from the surface of the gate electrode 20. See col. 2, line 26 and lines 29-31. Therefore, gate electrode 20 is the only component of the '548 reference that can reasonably be considered a sacrificial mass. The Examiner seems to be contending that migration of dopant from the channel

¹The Examiner's rejection of claim 78 continues to refer to gate oxide (18) as the sacrificial mass. Please see page 3 of the Office Action.

region under the gate oxide 18 is also a component of a sacrificial mass. Regardless of the accuracy of such contention, the '548 reference does not teach or suggest forming a void region from such transport of the boron from the channel region under the gate oxide.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be identically disclosed in a prior art reference, based on the foregoing, Applicant submits that claim 78 is not anticipated by the '548 reference. Accordingly, claim 78 is believed to be in condition for allowance.

As claims 79, 85, 87 and 88 depend from claim 78, they too are allowable.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested. While it is believed that the instant amendment places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is requested that the Examiner contact the undersigned.

Respectfully submitted,

Dated: November 10, 2003 By: K. Satish K
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